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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,849	10/24/2001	Seppo Salminen	309-010322-US (PAR)	6896

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EXAMINER

PHAM, TUAN

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2643

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/998,849	Applicant(s) SALMINEN ET AL.	
	Examiner TUAN A. PHAM	Art Unit 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13-16 and 19-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Applicant's remark, filed on 02/24/2005, with respect to the rejection(s) of claim(s) 1-24 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Muramatsu (U.S. Patent No.: 5,880,389).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, 5, 21-27, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (U.S. Patent No.: 5,576,981, hereinafter, "Parker") in view of Muramatsu (U.S. Patent No.: 5,880,389).

Regarding claim 1, Parker teaches a handset comprising (see figure 1, portable bar code reader):

a housing (see figure 2A, housing 103) having a display (see figure 2A, display) and first keypad (see figure 2A, first key pad 200), the first keypad being removably coupled to the housing (see col.4, ln.45-65);

circuitry within the housing, the circuitry adapted to interface with the display and the first keypad (see figure 3, col.4, ln.45-65, it is inherently that the handset should be include the circuitry to control the keypad or display); and

a second keypad (see figure 2B, second keypad 202), the second keypad exchangeable with the first keypad; wherein the second keypad is adapted to replace the first keypad on the housing when the first keypad is removed from the housing (see col.4, ln.45-65).

It should be noticed that Parker fails to teach the circuitry is adapted to detect a first resistance of the first keypad or a second resistance of the second keypad where the first resistance is different than the second resistance. However, Muramatsu teaches such features (see col.2, ln.5-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muramatsu into view of Parker, in order to conveniently operate the keypad with multiple functions.

Regarding claim 2, Parker further teaches the handset wherein the circuitry is adapted to detect whether the first keypad or the second keypad is interfacing with the circuitry (see col.4, ln.52-65).

Regarding claim 5, Parker further teaches the handset further comprising an illumination source, wherein the illumination source illuminates the first or second keypad when the first or second keypad is coupled to the housing (see figure 1, indicator 108, col.4, ln.19-32).

Regarding claim 21, Parker teaches a handheld electronic device comprising (see figure 2A):

a housing (see figure 2A, housing 103, col.4, ln.51-53);

circuitry disposed in the housing (see figure 3), the circuitry including a controller programmed to operate the circuitry (see figure 3, keyboard processor, col.4, ln.55-65) in accordance with a predetermined characteristic of the electronic device; and a user interface mounted to the housing for interfacing with the circuitry (see figure 3, keypad 302), the user interface being selected from a number of different user interfaces having different predetermined interface characteristics (see figure 2A, 2B, keypad 200, keypad 202, col.4, ln.46-65, col.5, ln.1-26).

It should be noticed that Parker fails to teach the circuitry is adapted to detect a first resistance of the first keypad or a second resistance of the second keypad where the first resistance is different than the second resistance. However, Muramatsu teaches such features (see col.2, ln.5-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muramatsu into view of Parker, in order to conveniently operate the keypad with multiple functions.

Regarding claim 22, Parker further teaches the device wherein the user interface has a predetermined interface characteristic corresponding to the predetermined characteristic of the device (see col.6, ln.6-24, col.7, ln.1-8).

Regarding claim 23, Parker teaches a handheld electronic device comprising (see figure 2A):

a housing (see figure 2A, housing 103, col.4, ln.51-53);

circuitry disposed in the housing (see figure 3), the circuitry including a controller programmed to operate the circuitry and provide the device with multiple applications (see figure 3, keyboard processor, col.4, ln.55-65)); and

an interchangeable user interface removable mounted to the housing for interfacing with the circuitry (see figure 2A, 2B, keypad 200, keypad 202, col.4, ln.45-65), the user interface being interchangeable with a number of different interchangeable user interfaces with different predetermined characteristics (see figure 2A, 2B, keypad 200, keypad 202, col.4, ln.45-65).

It should be noticed that Parker fails to teach the circuitry is adapted to detect a first resistance of the first keypad or a second resistance of the second keypad where the first resistance is different than the second resistance. However, Muramatsu teaches such features (see col.2, ln.5-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muramatsu into view of Parker, in order to conveniently operate the keypad with multiple functions.

Regarding claim 24, Parker further teaches the device wherein when the interchangeable user interface is interchanged with another of the number of different interchangeable user interfaces the device is changed from a first application to a second application (see col.4, ln.1-18).

Regarding claim 25, Parker teaches a handset comprising a first keypad for use with a handheld electronic device and the keypad being adapted to removably engage the device (see figure 2A, 2B, col.4, ln.46-65).

It should be noticed that Parker fails to teach the circuitry is adapted to detect a first resistance of the first keypad. However, Muramatsu teaches such features (see col.2, ln.5-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muramatsu into view of Parker, in order to conveniently operate the keypad with multiple functions.

Regarding claim 26, Muramatsu further teaches the device comprising said second keypad comprising a second resistance indicative of the type of said second keypad, said second resistance being different from said first resistance(see col.2, ln.5-22).

Regarding claim 27, Parker further teaches a display (see figure 2A).

Regarding claim 29, Parker further teaches the handset further comprising an illumination source, wherein the illumination source illuminates the keypad when the keypad engages the device (see figure 1, indicator 108, col.4, ln.19-32).

Regarding claim 31, Parker further teaches the handset (see figure 2A).

4. Claims 9-11, 13-16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (U.S. Patent No.: 5,576,981, hereinafter, "Parker") in view of Muramatsu (U.S. Patent No.: 5,880,389) and further in view of White et al. (U.S. Patent No.: 6,532,152, hereinafter, "White").

Regarding claims 9 and 15, Parker teaches a handset and method comprising:
a housing having a display and a keypad (see figure 2A, display, keypad 200, housing 103, col.4, ln.45-65); and

circuitry within the housing, the circuitry adapted to interface with the keypad and the display (see figure 3, col.4, ln.45-65, it is inherently that the handset should be include the circuitry to control the keypad or display);

a first keypad removable coupled to the housing (see figure 2A, first keypad 200, col.4, ln.45-65); and

a second keypad (see figure 2B, second keypad 202), the second keypad exchangeable with the first keypad; wherein the second keypad is adapted to be removable coupled to the housing when the first keypad is removed from the housing (see col.4, ln.45-65).

It should be noticed that Parker fails to teach the circuitry is adapted to detect a first resistance of the first keypad or a second resistance of the second keypad where the first resistance is different than the second resistance. However, Muramatsu teaches such features (see col.2, ln.5-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muramatsu into view of Parker, in order to conveniently operate the keypad with multiple functions.

Parker and muramatsu, in combination, fails to teach a cellular device. However, White teaches such features (see col.21, ln.15-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of White into view of Parker and Muramatsu, in order to communicate in wireless fashion.

Regarding claim 10, Parker teaches a handset wherein the first keypad at least partially conceals the telephone keypad (see figure 2A, keypad 200).

Regarding claim 11, Parker teaches a handset wherein the telephone circuitry is adapted to detect whether the first keypad or the second keypad is interfacing with the telephone circuitry (see col.4, ln.45-65).

Regarding claim 13, White teaches a handset wherein the first keypad has a larger number of keys than the second keypad and wherein the second keypad has larger keys than the first keypad (see figure 9, keypad 902, 904, 906, 908).

Regarding claim 14, White teaches a handset comprises a camera interface (see col.9, ln.43-45, read on video capture).

Regarding claim 16, Parker teaches the method of exchanging a keypad further comprising the step of providing circuitry within the housing, the circuitry being adapted to interface with the display and the first keypad (see figure 3, keypad 302, display 303).

Regarding claim 19, White teaches the method of exchanging a keypad further comprising the step of changing a user application of the cordless handset (col.21, ln.1-17).

Regarding claim 20, Parker teaches the method of exchanging a keypad further comprising the step of illuminating the second keypad (see figure 1, indicator 108, col.4, ln.19-32).

5. Claims 4, 7, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (U.S. Patent No.: 5,576,981, hereinafter, "Parker") in view of Muramatsu (U.S. Patent No.: 5,880,389) as applied to claim 1 above, and further in view of White et al. (U.S. Patent No.: 6,532,152, hereinafter, "White").

Regarding claims 4 and 28, Parker and Muramatsu, in combination, fails to teach the first keypad has a different number of keys than the second keypad. However, White teaches such features (see figure 9, keypad 902, 904, 906, 908).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of White into view of Parker and Muramatsu, in order to conveniently operate the keypad with multiple functions.

Regarding claim 7, White further teaches the handset wherein the first keypad has a larger number of keys than the second keypad and wherein the second keypad has larger keys than the first keypad (see figure 9, keypad 902, 904, 906, 908).

6. Claims 6, 8, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker et al. (U.S. Patent No.: 5,576,981, hereinafter, "Parker") in view of Muramatsu (U.S. Patent No.: 5,880,389) as applied to claim 1 above, and further in view of Rogers (U.S. Patent No.: 6,794,992).

Regarding claims 6 and 30, Parker and Muramatsu, in combination, fails to teach the first or second keypad are transparent or semi-transparent. However, Roger teaches such features (see figure 5, col.6, ln.15-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of White into view of Parker and Muramatsu, in order to conveniently operate the keypad with multiple functions.

Regarding claims 8 and 32, White further teaches the handset the first keypad is adapted to be used with a cordless telephone application and wherein the second keypad is adapted to be used with a game application (see figure 2, keypad 14, game 23).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Collins (U.S. Patent No. 6,038,313), Engstrom et al. (Pub. No.: U.S. 2004/0132492), Date et al. (Pub. No.: U.S. 2004/0214559), and Buessler et al. (U.S. Pub. No. 2003/0036362) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-7499 and

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Art Unit 2643
June 4, 2005
Examiner

Tuan Pham


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600